

GS 34M6C92-01E

**General**

The KM6□ fiber-optic cable is used for connecting Fiber-optic FA-bus Modules (F3LR01), Fiber-optic FA-bus Type 2 Modules (F3LR02) and Fiber-optic FA link H Modules (F3LP12). Several models are available for different applications.

**Model and Specifications**

**Fiber-optic Cords for Connections inside Panel  
(with bonding and polishing treatment on optical connector)**

Model	Suffix Code	Style Code	Option Code	Description	Applicable Module
KM60	-S06	—	—	For connections inside panel, 0.6 m	F3LR01, F3LR02, and F3LP12
	-001	—	—	For connections inside panel, 1.0 m	
	-003	—	—	For connections inside panel, 3.0 m	

**Fiber-optic Cables for Indoor Use with Tension Members  
(with bonding and polishing treatment on optical connector)**

Model	Suffix Code	Style Code	Option Code	Description	Applicable Module
KM61	-010	—	—	For indoor connections, 10 m	F3LR01, F3LR02, and F3LP12
	-100	—	—	For indoor connections, 100 m, pulling eye on one end	
	-150	—	—	For indoor connections, 150 m, pulling eye on one end	
	-200	—	—	For indoor connections, 200 m, pulling eye on one end	

Note: For information on pulling eyes, see the last page of this general specifications sheet.  
 Note: The KM62 cable may be used in wet environments (but not in submerged environments)

**Fiber-optic Cables for Indoor Use with Tension Members  
(with crimping and cutting treatment on optical connector)**

Model	Suffix Code	Style Code	Option Code	Description	Applicable Module
KM65	-001	—	—	For indoor connections, 1 m	F3LR01, F3LR02, and F3LP12
	-002	—	—	For indoor connections, 2 m	
	-003	—	—	For indoor connections, 3 m	
	-004	—	—	For indoor connections, 4 m	
	-005	—	—	For indoor connections, 5 m	
	-007	—	—	For indoor connections, 7 m	
	-010	—	—	For indoor connections, 10 m	
	-012	—	—	For indoor connections, 12 m	
	-015	—	—	For indoor connections, 15 m	
	-020	—	—	For indoor connections, 20 m	
	-025	—	—	For indoor connections, 25 m	
	-030	—	—	For indoor connections, 30 m	

Note: The KM61 cable must be used if a pulling eye is required.  
 Note: The KM62 cable may be used in wet environments (but not in submerged environments).

**Fiber-optic Cables for Outdoor Use with Tension Members  
(with bonding and polishing treatment on optical connector)**

Model	Suffix Code	Style Code	Option Code	Description	Applicable Module
KM62	-100	—	—	For outdoor connections, 100 m, pulling eye on one end	F3LR01 (Max. 200 m)  F3LR02 (Max. 200 m)  F3LP12 (Max. 1000 m)
	-200	—	—	For outdoor connections, 200 m, pulling eye on one end	
	-300	—	—	For outdoor connections, 300 m, pulling eye on one end	
	-400	—	—	For outdoor connections, 400 m, pulling eye on one end	
	-500	—	—	For outdoor connections, 500 m, pulling eye on one end	
	-600	—	—	For outdoor connections, 600 m, pulling eye on one end	
	-700	—	—	For outdoor connections, 700 m, pulling eye on one end	
	-800	—	—	For outdoor connections, 800 m, pulling eye on one end	
	-900	—	—	For outdoor connections, 900 m, pulling eye on one end	
	-L01	—	—	For outdoor connections, 1000 m, pulling eye on one end	
KM67	-300	—	—	For outdoor connections, 300 m, pulling eye on one end	F3LR02 (200 to 500 m)
	-400	—	—	For outdoor connections, 400 m, pulling eye on one end	
	-500	—	—	For outdoor connections, 500 m, pulling eye on one end	

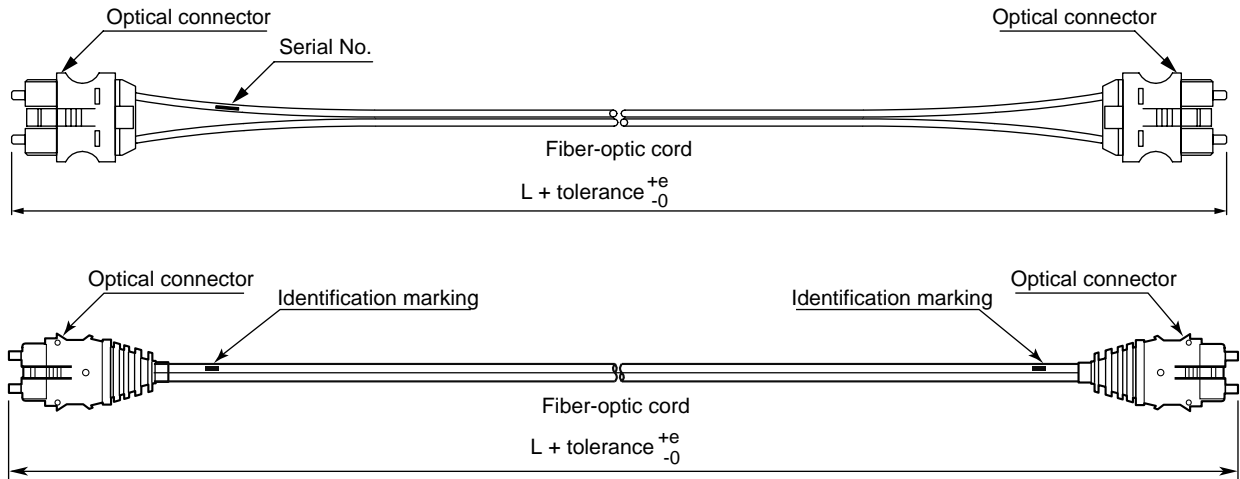
Note: For information on pulling eyes, see the last page of this document.

**CAUTION**

- Always use KM67 fiber-optic cables with fiber-optic FA-bus Type 2 modules (F3LR02) if the cable length exceeds 200 m. Using KM62 cables beyond 200 m will result in incorrect operation.
- For information on laying fiber-optic cables, see text under "CAUTION" on the last page of this document.
- KM6□ cables cannot be used in submerged environments. Contact Yokogawa's sales office for alternative solutions.
- The KM65 cable is provided with a test report (QIC 34M6C92-02).

**External Dimensions**

**KM60**

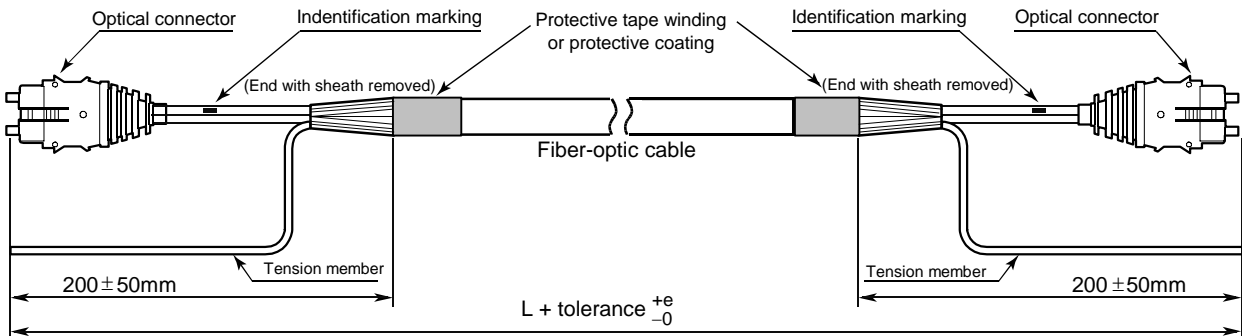
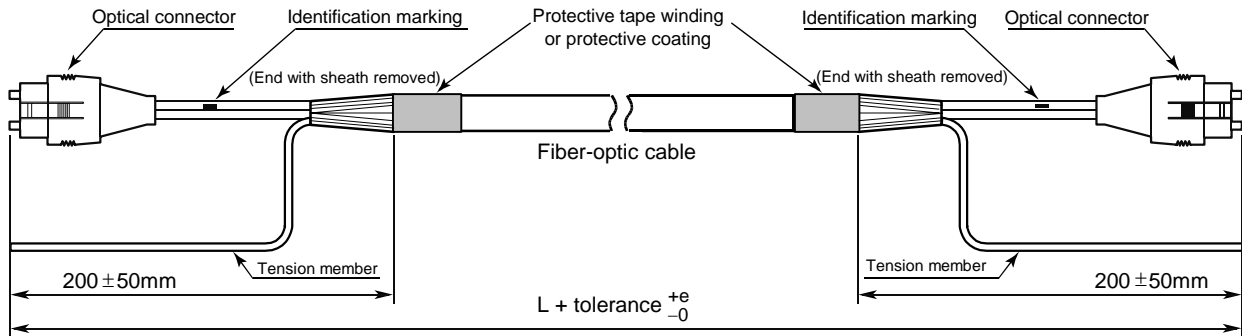


Length L (m)	Tolerance + e (m)
$L \leq 3$	0.20

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Note: Fiber-optic cord (KM60) is available in two types with optical connectors of different looks but customers cannot specify the connector type when placing an order.

**KM61, KM62, KM67**

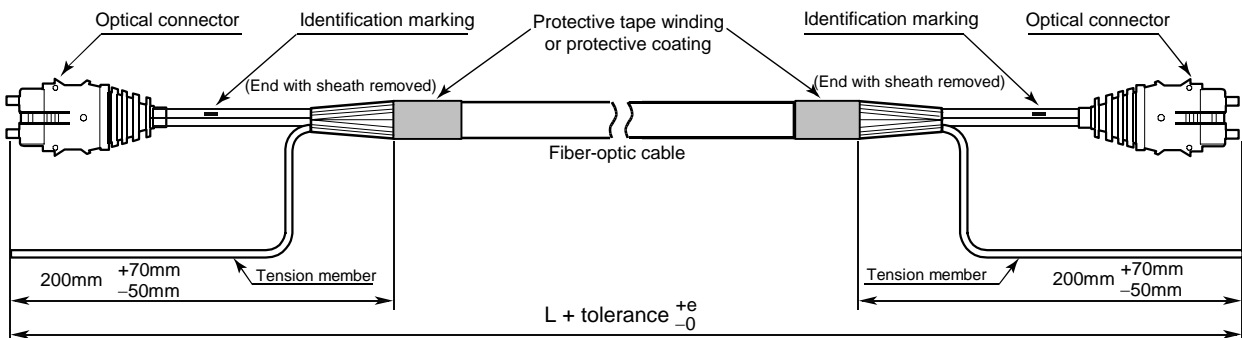


Cable Length L (m)	Tolerance +e (m)
5 < L ≤ 30	0.50
30 < L	L x 0.03 (3%)

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Note: Fiber-optic cable (KM61, KM62, KM67) is available in two types with optical connectors of different looks but customers cannot specify the connector type when placing an order.

**KM65**



Cable Length L (m)	Tolerance +e (m)
L ≤ 15	0.20
5 < L ≤ 15	0.30
15 < L ≤ 30	0.50

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## ■ Fiber-optic Cable Core Specifications

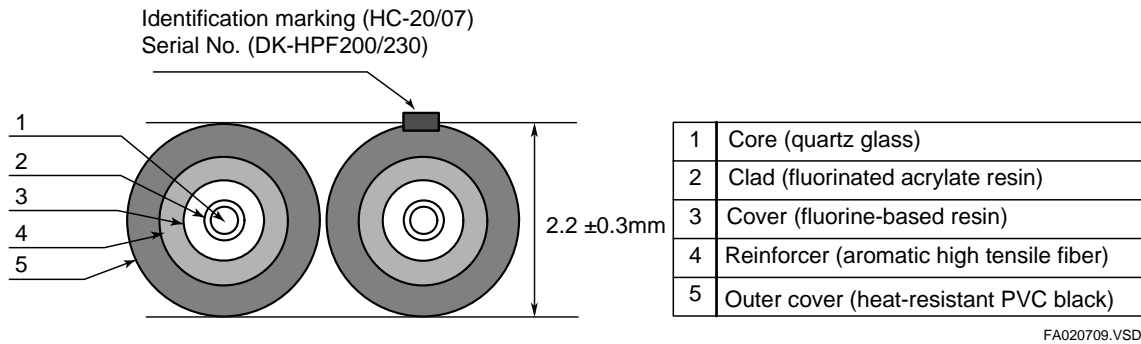
Product name	DK-HPF200/230 (for KM60)	HC-20/07 (for KM60, KM61, KM62, KM65)	HC-20/08 (for KM67)
Vendor	SWCC Showa Cable Systems	Sumitomo Electric Industries	
Core diameter	200±5 μm		
Clad diameter	230± <sub>10</sub> μm		
Transmission loss	7 dB/km max. (λ =0.85 μm, Ta=25°C) *1	7 dB/km max. (λ =0.81 μm, Ta=25°C)	8 dB/km max. (λ =0.81 μm, Ta=25°C)

## ■ Fiber-optic Connector Specifications

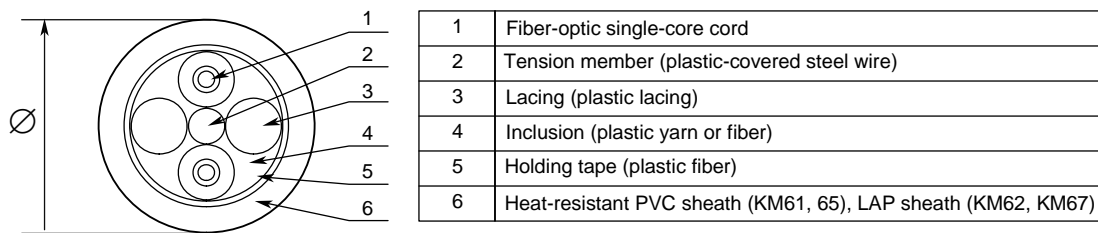
Product name	KF-07 (for KM60)	CF-2001H, CF-2071H (for KM60, KM61, KM62, KM67)	CF-2011, CF-2071 (for KM65)
Vendor	SWCC Showa Cable Systems	Sumitomo Electric Industries	Sumitomo Electric Industries
Specifications	Bi-directional, lever lock, bonding, polished	Bi-directional, lever lock, bonding, polished	Bi-directional, lever lock, crimping, cut

## ■ Cross-sectional Drawing

### KM60



### KM61, KM62, KM65, KM67



Model	Manufacturer Item code	External Dimensions(∅)
KM61 KM65	2-C-V	∅8.4mm ±1.0
KM62	2-C-LAP	∅10.0mm ±1.0

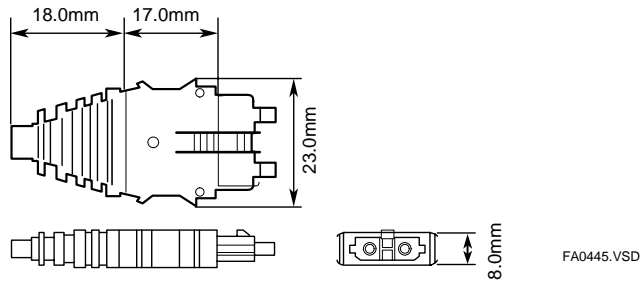
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Note: Near their fiber-optic connector where the sheath is removed, these cables have the same cross-section as KM60 cables.

## ■ Connector External Dimensions

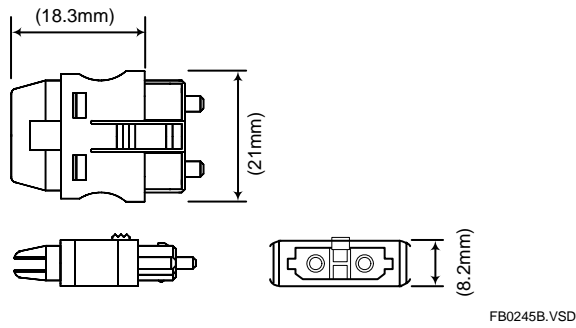
### CF-2071H and CF-2071

For use with cables KM60, KM61, KM62, KM65, and KM67

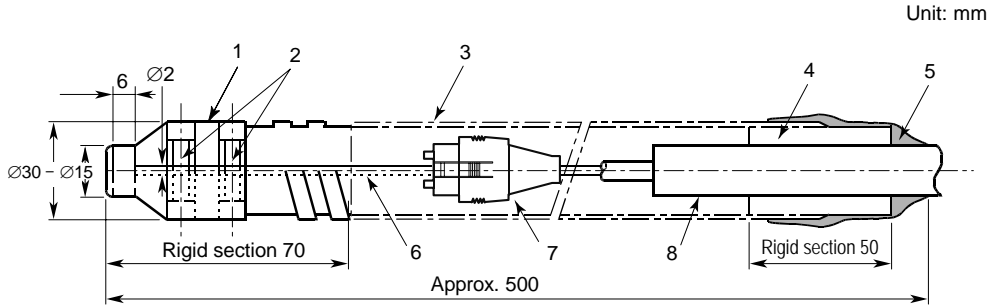


### KF-07

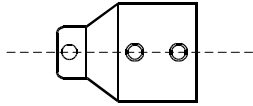
For use with cable KM60



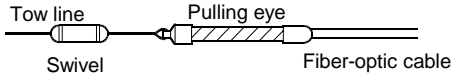
**Fiber-optic Lead-in Cable Laying Pulling-eye Assembly Diagram**



Unit: mm



When performing lead-in work, connect the pulling eye to the tow line through a swivel which is attached to the head of the pulling eye as shown in the figure below.



No.	Components	Qty.
1	Pulling eye	1
2	Stopper screw (M6)	4
3	Flexible pipe	1
4	Terminal spacer	1
5	Vinyl tape	-
6	Tension member	-
7	Optical connector	-
8	Fiber-optic cable	-

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Unlike general cabling work, laying fiber-optic cables (KM61, KM62, KM65 and KM67) requires professional knowledge and skills. We recommend that you engage a subcontractor specializing in laying fiber-optic cables.

**CAUTION:**

- Before laying cables, a user should check the cables (immediately after delivery) to ensure it is not defective.
- Fiber-optic cables (KM61, KM62, KM65 and KM67) are made-to-order products. Hence, replacement of a defective cable may require a week for KM65 cables, and a month for KM61, KM62, and KM67 cables.
- The provided warranty does not cover failures resulting from improper laying of cables.